

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A sensor apparatus adapted to be used with milk extraction machinery, the milk extraction machinery including a plurality of extraction elements for connection to a dairy animal which when activated are adapted to deliver extracted milk ~~from two or more extraction elements~~ into a single collection line, the sensor apparatus including:

a sensor forming a serial extension of the single collection line, wherein the sensor is adapted to detect a particular property of the milk extracted, and

a controller configured to control the activation of the extraction elements during a pre-determined period of milking the animal such that the sensor is exposed to extracted milk supplied from only one extraction element or one pair of extraction elements at any one time,

wherein the sensor apparatus is configured such that the property of the extracted milk detected by the sensor is matched with the extraction element or elements from which the milk was delivered ~~to identify the detected property of the extracted milk with the extraction element or elements from which the milk was extracted.~~

2. (Cancelled).

3. (Previously Presented) The sensor apparatus as claimed in claim 1 wherein the extracted milk supplied by an extraction element is foremilk.

4. (Currently Amended) The sensor apparatus as claimed in claim 1 wherein each of the an extraction elements are ~~are~~ [[is]] formed from a single teatcup ~~which includes a pulsator valve associated with an independent pulsator line of a pulsation system.~~

5. (Cancelled).
6. (Previously Presented) The sensor apparatus as claimed in claim 1 wherein the single collection line collects all milk delivered from a single animal.
7. (Cancelled).
8. (Currently Amended) The sensor apparatus as claimed in claim 1 wherein the ~~the~~ ~~[[a]]~~ sensor measures electrical conductivity.
9. (Currently Amended) The sensor apparatus as claimed in claim 4 wherein the controller is formed by a pulsator controller of the pulsation system ~~a dairy animal milking machine~~.
10. (Cancelled).
11. (Currently Amended) The sensor apparatus as claimed in claim 1 ~~[[0]]~~ wherein only a single extraction element ~~only~~ is pulsated at one time.
12. (Currently Amended) The sensor apparatus as claimed in claim 1 ~~[[0]]~~ wherein a pair of extraction elements are activated ~~pulsated~~ at one time.
13. (Previously Presented) The sensor apparatus as claimed in claim 1 wherein the controller allows a drainage delay period between activation of different extraction elements.
14. (Currently Amended) The sensor apparatus as claimed in claim 1 wherein the extraction element or elements ~~initially~~ activated by the controller are selected randomly.
15. (Cancelled).
16. (Cancelled).

17. (Previously Presented) The sensor apparatus as claimed in claim 1 which includes an indicator adapted to receive an output signal from the sensor, the indicator being adapted to issue an alarm signal indicating abnormal milk has been delivered from an extraction element or elements.

18. (Previously Presented) The sensor apparatus as claimed in claim 17 which includes a diversion system associated with the indicator to isolate abnormal milk.

19. (Currently Amended) The sensor apparatus as claimed in claim 17 wherein milk abnormality is detected through a comparison between the sensor output signal[[s]] indicating the detected property of the milk extracted from an udder quarter or half of the dairy animal by an extraction element or elements, and the sensor output signal indicating the detected property of the milk extracted from other quarters or half of the same udder by ~~and~~ an alternative extraction element or elements.

20. (Currently Amended) The sensor apparatus as claimed in claim 17 wherein a rolling average of sensor readings is employed to detect abnormalities in the extracted milk.

21-25. (Cancelled).

26. (New) The sensor apparatus as claimed in claim 1 wherein the extraction elements are sequentially activated by the controller.

27. (New) The sensor apparatus as claimed in claim 4 wherein activation of each teatcup is achieved by pulsation in the teatcup by a cyclic change in air pressure applied by the pulsation system.

28. (New) The sensor apparatus as claimed in claim 27 wherein there is a threshold level of air pressure for activation of each teatcup above which extracted milk is delivered to the single collection line.

29. (New) The sensor apparatus as claimed in claim 28 wherein a teatcup is pulsated by a cyclic change in air pressure below the threshold level.

30. (New) A sensor apparatus adapted to be used with milk extraction machinery, the milk extraction machinery including a plurality of extraction elements for connection to a dairy animal which when activated are adapted to deliver extracted milk into a single collection line, the sensor apparatus including:

a sensor forming a serial extension of the single collection line, wherein the sensor is adapted to detect a particular property of the milk extracted, and

a controller configured to control the activation of the extraction elements during a pre-determined period of milking the animal such that the sensor is exposed to extracted milk supplied from only one extraction element or pair of extraction elements at any one time,

wherein the sensor apparatus is configured to detect abnormality of the extracted milk through a comparison between a sensor output signal indicating the detected property of the milk extracted from an udder quarter or half of the dairy animal by an extraction element or elements, and a sensor output signal indicating the detected property of the milk extracted from other quarters or half of the same udder by an alternative extraction element or elements.

31. (New) The sensor apparatus as claimed in claim 30 wherein the sensor measures electrical conductivity.

32. (New) The sensor apparatus as claimed in claim 30 including an indicator adapted to receive an indication of milk abnormality, the indicator being adapted to issue an alarm signal indicating when abnormal milk has been delivered from an extraction element or elements.

33. (New) The sensor apparatus as claimed in claim 32 including a diversion system associated with the indicator, the diversion system configured to isolate abnormal milk.